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Title: **JP11240970A2: POROUS MEMBRANE AND SEPARATOR USING THE SAME A USED FOR BATTERY**
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Country: JP Japan
Kind: A

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Issued/Filed Dates: Sept. 7, 1999 / Feb. 24, 1998

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IPC Class: C08J 9/00; C08K 5/20; H01M 2/16; C08L 23/02;

Priority Number(s): Feb. 24, 1998 JP1998199842515

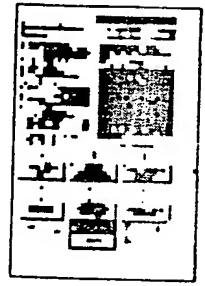
Abstract: **Problem to be solved:** To provide a porous membrane having a low shutdown(SD)-initiating temperature and a large SD rate and useful as a separator for a battery.
Solution: This porous membrane is formed from a mixture of a polyolefin with a substance which has a lower melting point than that of the polyolefin and is incompatible with the polyolefin. The substance comprises at least one of a resin having a viscosity-average mol.wt. of 100-10,000 and an aliphatic compound having 9-22 carbon atoms in the aliphatic chain. When the ion transmission-interrupting temperature of the porous membrane is set to a range of 105-130°C, and when the electric resistance of the porous membrane is measured on the basis of JIS C 2313, the electric resistance value of the porous membrane after a thermal treatment at 130°C for 0.6 sec is set to ≥20 times an electric resistance before the treatment. Polypropylene and highly dense polyethylene wax may be used as the polyolefin and the substance, respectively.
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Other Abstract Info: CHEMABS 131(14)186015K CHEMABS 131(14)186015K DERABS C1999-555112 DERABS C1999-555112

Foreign References No patents reference this one



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PATENT ABSTRACTS OF JAPAN(21) Application number: **10042515**(51) Intl. Cl.: **C08J 9/00 C08K 5/20 H01M 2/16**(22) Application date: **24.02.98**

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states:(71) Applicant: **NITTO DENKO CORP**(72) Inventor: **NISHIYAMA SOJI
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(74) Representative:

**(54) POROUS MEMBRANE
AND SEPARATOR USING
THE SAME AND USED FOR
BATTERY**

(57) Abstract:

PROBLEM TO BE SOLVED: To provide a porous membrane having a low shutdown(SD)-initiating temperature and a large SD rate and useful as a separator for a battery.

SOLUTION: This porous membrane is formed from a mixture of a polyolefin with a substance which has a lower melting point than that of the polyolefin and is incompatible with the polyolefin. The substance comprises at least one of a resin having a viscosity-average mol.wt. of 100-10,000 and an aliphatic compound having 9-22 carbon atoms in the aliphatic chain. When the ion transmission-interrupting temperature of the porous membrane is set to a range of 105-130°C, and when the electric resistance of the porous membrane is measured on the basis of JIS C 2313, the electric resistance value of the porous membrane after a thermal treatment at 130°C for 0.6 sec is set to

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